FEASIBILITY STUDY

NC 226 FROM US 221 TO THE BLUE RIDGE PARKWAY
McDowell County
R-2234

Prepared by
Planning and Research Branch
Division of Highways
N. C. Department of Transportation

August, 1987

FEASIBILITY STUDY

NC 226 FROM US 221 TO THE BLUE RIDGE PARKWAY
McDowell County
R-2234

The subject project is included in the 1987-1995 Transportation Improvement Program for feasibility study and/or right of way protection. This report provides a brief, initial analysis of possible improvements. The project is not currently funded.

I. GENERAL DESCRIPTION

The proposed project consists of general safety improvements and pavement rehabilitation to a 5.5 mile section of NC 226. The estimated cost of the project is $1,100,000.

II. EXISTING CONDITIONS

CROSS SECTION:

From US 221 for approximately 4.3 miles north, the roadway consists of a 22-foot pavement and variable width grassed shoulders (2-4 feet). The remainder of the studied section of NC 226 to the Blue Ridge Parkway consists of 20-18 feet of pavement with 2-3 feet of graded shoulders.

ESTIMATED TRAFFIC VOLUMES:

1987 ADT	=	4,000 ADT
2007 ADT	=	6,500 ADT

The above estimates include 3% truck-tractor semi-trailer and 4% dual tired vehicles. The design hourly volume (DHV) is 10% of the ADT.

TERRAIN:

The terrain in the project vicinity is mountainous, especially in the northern portions near the Blue Ridge Parkway where the roadway is basically cut into mountain sides. The southern portion of the studied section in the vicinity of NC 226A is paralleled by Armstrong Creek on the west side.

ALIGNMENT:

Alignment is mostly severe with frequent switchbacks and steep grades. However, the alignment is in keeping with the location and the relatively low traffic volumes.

ACCIDENT INVENTORY:

During the period between January 1984 and January 1987, a total of 75 accidents including one accident that resulted in a fatality, were reported to have taken place on the studied section. This results in a total accident rate of 328.8 accidents per 100 million vehicle miles of travel (acc/100 mvm). The statewide accident rate for similar routes was 197.6 acc/100 mvm during 1986. Vehicles running off the road accounted for 46.7% of all the reported accidents.

PAVEMENT:

The pavement was resurfaced in 1982 with a 1.5 inch bituminous overlay. Presently, the pavement is distressed with cracking especially near the outside edges.

III. RECOMMENDED IMPROVEMENTS

It should be stated that the number of accidents may be reduced by improving the alignment. The combination of steep grades and high altitude causes heavy trucks and recreational vehicles to run at crawl speed. However, any realignment of the roadway will be prohibitively costly due to the rugged terrain, especially on the northern portions of the studied section. Therefore, the following improvements are recommended as the most cost-effective, and in keeping with the location of the project:

1. Resurface the existing pavement (5.5 miles).
2. Install and/or replace guardrail where needed.
3. Provide 2-foot paved shoulders where feasible.
4. Provide roadside parking areas where feasible.

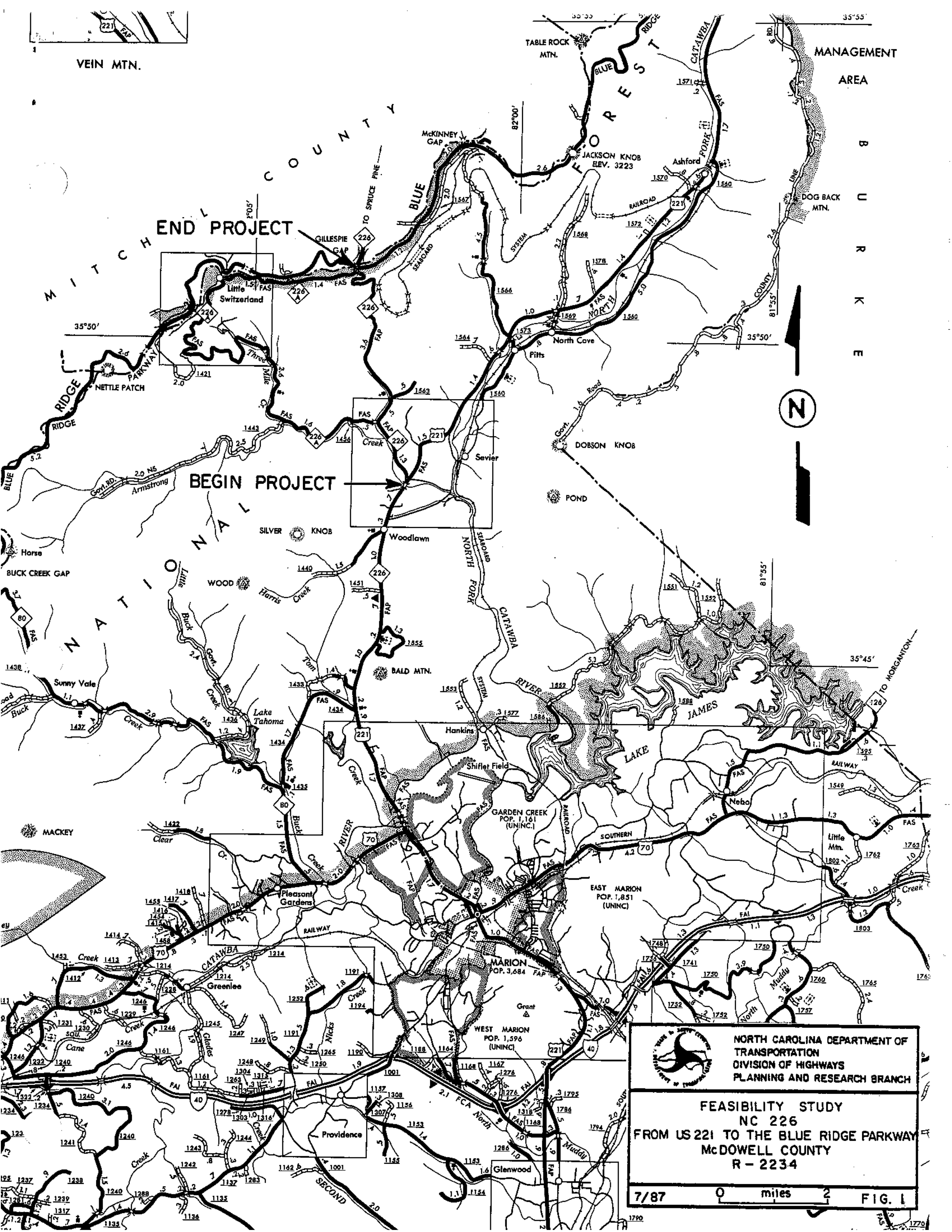
IV. ESTIMATED COST

The above improvements were estimated to cost $1,100,000.

V. FUTURE ACTIVITIES

If the project is to be implemented at a future date, all feasible alternatives and their associated impacts will need to be evaluated in a planning/environmental document prior to that time, and a final decision made as the most appropriate improvements.

MM/plr



END PROJECT
BEGIN PROJECT
MITCHELL COUNTY
BLUE RIDGE PARKWAY
NATIONAL FOREST
BURKE
MANAGEMENT AREA
VEIN MTN.
TABLE ROCK MTN.
McKINNEY GAP
GILLESPIE GAP
JACKSON KNOB ELEV. 3223
Little Switzerland
NETTLE PATCH
Ashford
DOG BACK MTN.
North Cove
Pitts
Sevier
DOBSON KNOB
POND
Woodlawn
SILVER KNOB
BUCK CREEK GAP
WOOD
BALD MTN.
Sunny Vale
Lake Tahoma
Hankins
Shiflet Field
LAKE JAMES
TO MORGANTON
Nebo
GARDEN CREEK POP. 1,161 (UNINC.)
EAST MARION POP. 1,851 (UNINC)
MACKEY
Pleasant Gardens
Greenlee
MARION POP. 3,684
WEST MARION POP. 1,596 (UNINC)
Little Mtn.
Providence
Glenwood
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH
FEASIBILITY STUDY
NC 226
FROM US 221 TO THE BLUE RIDGE PARKWAY
McDOWELL COUNTY
R - 2234
7/87
0 miles 2
FIG. 1